



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,945	10/17/2003	Shary Nassimi	302p-IEI	9917

7590

12/22/2005

The Law Office of Craig W. Barber  
PO Box 16220  
Golden, CO 80402-6004

EXAMINER

ZEWDU, MELESS NMN

ART UNIT PAPER NUMBER

2683

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/687,945	<b>Applicant(s)</b> NASSIMI, SHARY	
	<b>Examiner</b> Meless N. Zewdu	<b>Art Unit</b> 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. This action is the first on the merit of the instant application.
2. Claims 1-9 are pending in this action.

### ***Claim Objections***

Claim 2 is objected to because of the following informalities: the claim recites "such a telephone" in line 3, which tends to make the claim vague. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mooney et al. (Mooney) (US 2003/0045235 A1) in view of Houck et al. (Houck) (US 4,939,775) and further in view of Kanai (US 6,233,462 B1). Claim 2 is considered first.

**As per claim 2:** Mooney discloses a wireless headset for connection to a telephone (see figs. 1 and 5) comprising:

detection of a ring signal on such a telephone (headset) (see fig. 2, elements 200 and 171; page 3, paragraph 0050);

a voice level detection circuit capable of activating the headset (see page 3, paragraphs 0048 and 0050). But, Mooney does not explicitly teach about a timer circuit activated by detection of a ring signal for a predetermined length of time, as claimed by

Art Unit: 2683

applicant. However, in a related field of endeavor, Houck teaches about a telephone ring detector wherein a magnitude of a short burst distinctive ringing signal is detected and integrated over a predetermined period of time controlled by a timer (see abstract; col. 2, lines 3-24). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Mooney with that of Houck for the advantage of enhancing the accuracy of the detector (see col. 2, lines 6-14). But, Mooney in view of Houck does not explicitly teach about a detecting an elevated voice level during a predetermined length of time, as claimed by applicant. However, in a related field of endeavor, Kanai teaches about a detecting unit for detecting an ambient noise level, during a predetermined time, and a sound level control unit for controlling at least one of a transmitting voice level and a calling sound level on the basis of the detected noise level (see col. 2, lines 4-34), wherein the sound controlling means includes inputting a threshold value, comparing the ambient noise level with threshold value (see col. 2, lines 50-65). It is to be noted that inputted voice level is detected/received by the system and compared to the ambient noise level during a predetermined time when the noise is detected and the voice is transmitted when it is larger/elevated than the noise level. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Kanai for the advantage of automatically controlling a transmitting voice level and calling sound level (see col. 1, lines 8-11).

**As per claim 1:** Mooney discloses a wireless headset (figs. 1 and 2) capable of noise level recognition/detection (see fig. 2, elements 171 and 200; page 3, paragraph 0054, lines 1-7), comprising:

a phone ringer (page 3, paragraphs 0049-0050);

means for recognizing/detecting noise/sound levels (see fig. 2, element 200; page 3, paragraphs 0048 and 0050). The Bluetooth enabled smart headset is capable of detecting/recognizing any one of many types of tones some level of noise during an established call.

means for activating the headset after recognizing/detecting a noise/sound (see page 3, paragraphs 0048-0050). But, Mooney does not explicitly teach about a timer circuit activated by detection of a ring signal for a predetermined length of time, as claimed by applicant. However, in a related field of endeavor, Houck teaches about a telephone ring detector wherein a magnitude of a short burst distinctive ringing signal is detected and integrated over a predetermined period of time controlled by a timer (see abstract; col. 2, lines 3-24). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Mooney with that of Houck for the advantage of enhancing the accuracy of the detector (see col. 2, lines 6-14). But, Mooney in view of Houck does not explicitly teach about noise levels above background environment sound level, as claimed by applicant. However, in a related field of endeavor, Kanai teaches about a detecting unit for detecting an ambient noise level based on which a transmitting voice level and calling sound level are controlled (see col. 2, lines 4-34, lines 50-65). The reference teaches that the detected

Art Unit: 2683

noise level can be either larger or smaller than the ambient/background noise level.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Kanai for the advantage of automatically controlling a transmitting voice level and calling sound level (see col. 1, lines 8-11).

Claims 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mooney et al. (Mooney) (US 2003/0045235 A1) in view of Martinez et al. (Martinez) (US 2003/0017859 A1)

**As per claim 3:** Mooney discloses a wireless headset for connection to a telephone (see figs. 1 and 2) comprising:

a noise/sound recognition/detector circuit operatively able/coupled to activate the headset (see fig. 2, elements 171 and 200; page 3, paragraphs 0048-0051). Sound can be considered as noise.

the noise/sound recognition/detection circuit distinguishing voice/sound levels below a first and initiating off-hook operation of such telephone if the activating noise/sound is detected (see page 3, paragraphs 0048-0050), during a length of time (see page 1, paragraph 0007). Since, there is no a first length of time, "a second length of time" is read as, just, a fixed of time, as provided in the prior art. But, Mooney does not explicitly teach about, a noise level recognition circuit (noise level detector), distinguishing voice/noise levels below a first level decibel level as an ambient noise level and the noise level recognition circuit distinguishing voice/noise levels above a second decibel level as the activating noise level, as claimed by applicant. However, in a related field of

Art Unit: 2683

endeavor, Martinez teaches about smart (adaptive) ringer (see title) for use in a telephone that is capable of monitoring the decibel level of ambient/background noise and sampling the noise for a period of time so as to adjust the decibel level of the ringer to exceed the ambient/background noise level (see entire document, particularly, page 1, paragraphs 005-0007). In other words, when the background noise level is high, the ringer sound/noise level goes higher than the background noise so as to be heard; thus reading on the features, first and second decibel levels. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Mooney with that of Martinez for the advantage of helping a user, in a noisy environment, readily determine that the his/her telephone is ringing (see page 3, paragraph 0005).

**As per claim 4:** Martinez teaches a wireless device/telephone that can sample the ambient noise for a time period (see page 1, paragraph 0007), which suggests a timing means in the telephone. Furthermore, since there is not a first length of time mentioned in either claim 3 or 4, the recited second length of time is read as just, a length of time. Finally, when the references are modified as shown in the rejection of claim 3 above, the wireless device will be the modified wireless headset.

**As per claim 5:** Martinez teaches a wireless device/telephone further comprising, an adjustable decibel setting device (see page 1, paragraphs 0004- 0005 and 0007). The prior art advantageously monitors and/or samples the decibel level of the ambient noise environment, to determine variations. Finally, when the references are modified as

Art Unit: 2683

shown in the rejection of claim 3 above, the wireless device will be the modified wireless headset.

**As per claim 6:** Martinez teaches a wireless device/telephone, further comprising an adjustable decibel setting device for setting activating noise levels (see page 1, paragraphs 0005 and 0007). Finally, when the references are modified as shown in the rejection of claim 3 above, the wireless device will be the modified wireless headset.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claim 3 above, and further in view of Boyer (US 5,844,992).

**As per claim 7:** but, the references applied to claim 7 above, do not explicitly teach about the use of a fuzzy logic circuit which samples a background noise level to determine an ambient noise level, as claimed by applicant. However, in a related field of endeavor, Boyer teaches about a fuzzy logic device/circuit (fig. 5) for automatic sound control, wherein the fuzzy logic control circuit is used for adjusting sound transmission characteristics in response to ambient noise measurements (see fig. 5; abstract).

Sampling would have been obvious from the end result of adjusting within the context of the prior art. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the references applied to claim 3 above with the teaching of Boyer for the advantage adjusting/ reducing the sound level of an acoustic device during a telephone call, during conversation or with other causes of ambient noise generation<sup>1</sup> (see col. 1, lines 39-47).



Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claim 3 above, and further in view of Lyle et al. (Lyle) (US 4,484,036).

**As per claim 8:** but, the references applied to claim 3 above, do not explicitly teach the feature, wherein the activating noise level must occur for 300 milliseconds in order allow the off-hook initiation, as claimed by applicant. However, in a related field of endeavor, Lyle teaches about a telephone ring detector wherein the burst ring signal that initiates the detector be at least 300 milliseconds (see col. 3, lines 55-64). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Lyle for the advantage of eliminating false triggering (see col. 3, lines 55-59). When the references are combined, the 300 milliseconds activating noise level will be applied to a wireless headset.

#### ***Allowable Subject Matter***

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

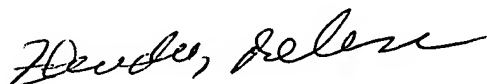
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu



Examiner

01 December 2005.